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A CASE OF EXCESSIVE SALIVATION DURING TWO SUCCESSIVE PREGNANCIES; FACE PRESENTATION; FIRST POSITION; ROTATION EFFECTED BY FORCEPS; CHILD ALIVE.¹

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FOR many of the clinical notes of the following case I am indebted to Mr. C. M. Green, of the Harvard Medical School, who had the immediate care of the case during the delivery and the subsequent convalescence.

Mrs. C., aged thirty-five years, became pregnant for the first time, in December, 1874. At about the fourth week she began to be troubled with a profuse salivation, which continued throughout her full term, and ceased with the birth of the child in the following September. The salivation was the only marked feature of the pregnancy. She was delivered, however, with forceps, although she is ignorant of the reason why they were used. The child was apparently healthy, but died at the age of three months, of erysipelas.

Towards the close of last June she became again pregnant, and before she noticed that the catamenia had ceased, probably between the second and fourth week of the pregnancy, profuse salivation again appeared. Indeed, remembering her former experience, she regarded the salivation as the first indication of her condition, and was not therefore at all surprised when the catamenia failed to appear at their usual time. The salivation became very profuse as in the first pregnancy. In other respects her health was excellent. The absence of the usual nausea and vomiting, which accompany the earlier months of pregnancy, was again as noticeable as it had been when she was carrying her first child.

I first saw the patient September 4, 1876, when she applied to the out-patient department of the Massachusetts General Hospital, to see if she could not obtain some relief from the distressing and constant salivation. Various remedies were tried, both internally and locally, but with no decided or permanent effect. Finding that all treatment

¹ Read before the Boston Obstetrical Society, April 14, 1877.

seemed ineffectual she ceased coming to the hospital, and I regarded the history of the case as closed.

At half past five o'clock, on the morning of March 29th, I was sent for by Mr. Green, of the medical school, to see a patient who had been placed under his care by the obstetrical department of the school. On arriving I found that it was the same patient who had consulted me at the hospital on account of the salivation. Mr. Green had been called to see her about nine o'clock the previous evening. Labor had begun about eight hours prior to his first visit. The os was then about the size of a silver quarter of a dollar, and the membranes were unruptured. The presentation could not be made out. The salivation was very profuse. The pains were severe and frequent, but little advance was made during the night, and as there seemed to be some unusual delay in the progress of the case I was sent for.

On reaching the house I found that the membranes had ruptured. The os was fully dilated. The presentation was that of a face in the first position. The pains were very frequent and strong, and the presenting part was crowded well down into the lower plane of the pelvic canal. The woman was in a fair condition, although showing some signs of fatigue. The pulse was about eighty.

Owing to the comparatively good condition of the mother, and realizing the fact that any interference to be of benefit must be of a serious character, I determined to wait and see if it were possible for rotation to take place with the face crowded down into the pelvis as firmly as this appeared to be. At nine o'clock there was an increase in the swelling of the presenting part, and if possible a more crowded condition of the head and face within the pelvic canal. The forehead seemed, however, to have rotated slightly towards the pubic arch. The mother seemed more fatigued, but the pulse was still about eighty and of good character. The pains were strong and frequent. At twelve o'clock no change whatever had taken place so far as the position of the child was concerned, but the mother's pulse had risen to a hundred, and she was evidently becoming greatly exhausted. The pains were still very frequent, but much less strong. The fetal heart was not heard. Before proceeding to extreme measures I determined to see if it were possible to effect a rotation by means of the forceps. The bladder was accordingly emptied and the blades were applied over the parietal bones. A steady and strong pressure was exerted, with a view to effecting a rotation of the brow towards the mother's left and backward into the hollow of the sacrum. This was, however, found to be impossible. Remembering that the brow had previously shown a slight tendency to rotate forward and towards the right, thus describing five eighths rather than three eighths of the circle, I then endeavored to accomplish a rotation in that direction. Constant pressure being brought to bear with

that end in view, for some time, the head began slowly to rotate, the brow finally swung around and back into the sacral cavity, and the chin presented under the arch of the pubes. The child, a male, weighing eight and one half pounds, was extracted without further difficulty.

An examination of the child showed that the neck was very much twisted and bent towards the right. The face was one complete ecchymosis, the eyelids and lips being greatly swollen. The respiration of the child was established only after considerable difficulty.

The patient made a good recovery. The salivation stopped within an hour after the birth of the child. The milk came on the third day.

The child improved daily in appearance. The twisting of the neck gradually disappeared, and the tenth day after delivery there was nothing abnormal to be noticed in its appearance, except a blood-shot condition of the left eye.

The case is interesting, owing to the occurrence of such marked salivation in two successive pregnancies, and also from the fact of the rotation of the face being effected under very unfavorable circumstances.

As regards the salivation it will be noticed that in both pregnancies it was the first symptom which betokened the fact of an existing pregnancy. In both it continued during the whole period of the gestation, and ceased immediately upon the birth of the child. It was unusually profuse, causing, however, but little if any constitutional disturbance. It resisted all treatment, and was accompanied, as has been observed to be the rule in such cases by German writers on the subject, by unusual freedom from the nausea and vomiting so universally observed in the earlier months of pregnancy.

As regards the delivery, it seemed evident that, owing to the condition of the mother and the probable condition of the child, any further delay in terminating the labor would have proved disastrous either to the child, or the mother, or possibly to both. The usual rotation had failed to take place, and crowded down as the face was, and confined in its position by the coccyx and descending rami of the pubic bones on the one side and the tuberosities of the ischia on the other, it seemed impossible that nature unaided could have effected the rotation. If the brow had rotated forward under the pubic arch, it would of course have been possible under very favorable circumstances for the child to have been born, the forehead and anterior fontanelle first appearing and the face subsequently sweeping the perinæum, while the cranium was pressed against the pubic arch. This, however, could have happened only where the pelvis was unusually roomy, or the child uncommonly small. On attempting rotation with the forceps it was curious to see how difficult if not impossible a rotation backward through only three eighths of a circle was, while a similar attempt made in the opposite direction, although necessitating the passage of the head through

five eighths of the circle, was accomplished with comparatively little trouble. This rotation of the forehead through the longer arc of the circle is extremely rare, and owing to its rarity this case has seemed to me worthy of being placed upon record.

REPORT FOR THE MIDDLESEX EAST DISTRICT MEDICAL SOCIETY.

F. WINBOR, M. D., REPORTER.

THIS society has held a meeting every month of the past year on some evening near full moon; always at the house of some member who volunteers to act as host and furnish a supper for hard-worked physicians, many of whom ride a number of miles to the meeting, and some of whom must come without supper at home, and cannot be held to regular attendance on meetings for medical improvement unless they can be certain to find a pleasant social meal provided there. The average attendance has been thirteen members.

In this district, as elsewhere in the State, the year has been one of less than the usual amount of disease, and the type of disease has been light, in both respects contrasting strongly with the year which preceded it. In the towns of Woburn and Stoneham scarlatina has been endemic for the last two years, but has not been of unusual severity, nor has it spread more rapidly than in ordinary epidemics.

In the absence of any district medical library, and of the means for obtaining one, the society has adopted a suggestion of its present president for making available to every member a loan or reference library consisting of all the professional and scientific books of our members, by compiling into one catalogue the lists furnished by the members, each of his own professional library. This manuscript catalogue lies on the table at each of our meetings for the benefit of any one who wishes to consult a book not in his own possession. If one of his fellows in the district has it he knows that it is at his disposal.

From various papers and reports of cases the following are selected as having especial interest for the state society, either from their presenting rare cases or from their suggesting remedial measures not often employed and of possible value to the profession.

Subcutaneous Injection of Alcohol in an Infant Ten Days Old.—A member was called, in the absence of the family physician, to an infant ten days old, which seemed to be dying from profound depression of the nervous system, with symptoms strongly pointing to narcotism. Indeed, nothing was wanting but the contracted pupil. On inquiry, it appeared that an opiate which would have been large for a child a year old had been inadvertently administered some hours before. Nothing would

rouse the little thing. Remedies by the mouth were out of the question; sinapisms and smart slapping with wet towel produced no effect. No continuous pulse could be felt. A subcutaneous injection was given of three drops of rum with six drops of warm water, with the effect of restoring, within three minutes, a continuous pulse, of markedly improving the respiration and the cutaneous circulation, and of enabling the baby to swallow within ten minutes, when coffee was repeatedly given by the mouth, and sinapisms again applied. In about forty minutes the symptoms of narcotism had returned to such an extent that the rum was again given subcutaneously in the same dose and with precisely the same result, excepting the longer dispelling of stupor. In two hours more the narcotized state, though not so profound as before, had so far returned as to justify, in the opinion of the family physician as well as of the member previously in attendance, a repetition of the injection. After this third dose the baby fed from the bottle, but the family physician saw occasion to give a fourth dose subcutaneously within three hours before he considered the child out of danger.

Certain Statistics selected from a Report made to the Society on Obstetrical Cases in 1875. — A committee appointed for the purpose made a report to the society, based on the obstetrical returns for the year 1875, given by twelve members of the society, who reported in the aggregate 427 births, resulting in 433 children. Twin births 6, being 1 in 71, or 1.4 per cent.

The mothers' nationality was as follows: United States 232, or 54 per cent.; Irish 131, or 33 per cent.; English 11, or 2.50 per cent.; Nova Scotia 21, or nearly 5 per cent. Other nationalities too slightly represented to be worthy of notice here.

The average duration of "pains" (in the 311 cases where this was recorded) was 10 hours, 43 minutes. In 169 American mothers, average 10 hours, 33 minutes; in 91 Irish mothers, average 10 hours, 36 minutes; in 20 Nova Scotians, average 10 hours, 28 minutes.

Of 386 cases recorded there were first births, 122; second, 95; third, 53; fourth, 39; fifth, 22; sixth, 17; seventh, 19; eighth, 10; ninth, 2; tenth, 3; eleventh, 2; twelfth, 1; fourteenth, 1.

Out of 362 cases where the hour of birth was recorded, there were born between six P. M. and six A. M., 196, scarcely more than 54 per cent.

Miscarriages occurred in 232 American mothers, in 17.2 per cent. cases; in 181 Irish mothers, in 17.5 per cent. cases.

Presentations recorded, 385, of which there were of vertex, 94.5 per cent.; and of the remaining 5.5 per cent. there were breech, 6; face to pubes, 6; footling, 3; shoulder, 2; arm, 1; vertex and cord, 1; face, 1; anterior fontanelle, 1.

Instrumental deliveries (as reported): forceps used in 17 cases.

Of 9 cases of turning by the feet, 6 were because of disproportionate size; 1 because of placenta prævia; 1 because of arm presentation; 1 reason not stated.

Children still-born, 23, or 5.3 per cent.; children dying within the year, 30; but as 11 of these were of premature birth, and 8 others had such malformations as prevented their being viable, the mortality among those fairly viable is reduced to a percentage startlingly small, namely, 2.3 per cent.

Mortality of mothers 3 in 427, or $\frac{3}{427}$ of 1 per cent., of which 1 was of renal disease after four weeks; 1 was of embolism in half an hour; 1 was of embolism on the twenty-fourth day, both the latter being after severe labors.

Mortality among twins 5 in 12, or 41+ per cent. (2 from premature birth). Of the 6 cases of twins 5 were in Irish mothers, 1 American.

One woman out of 5 labors had adherent placenta in 4.

Placenta prævia. There were 2 cases: 1 partial, 1 complete; in both cases mother and child did well.

Severe post-partum hæmorrhage, 1 case, with syncope, which recovered.

In one case labor began (as marked by gush of water and dilatation of os) four hours before a pain was felt, and a single pain brought child and placenta through the vulva, still-born, with legs extended and ankylosed at knees; the third still-born child this woman had had in succession.

Fatal Case of Concealed Femoral Hernia. — A woman, fifty-six years old, mother of five or six children, in March, 1876, struck the right groin against the sharp corner of a bedstead, causing a "smarting pain." Shortly after she noticed a swelling there as large as an English walnut, in which she sometimes had pain. Her physician was called two weeks after the accident, at which time there was severe pain in the stomach and bowels. In the right groin was a tumor as big as a small hen's egg resting on and above Poupart's ligament. Under taxis it nearly disappeared. Twenty drops of equal parts of ether and chloroform gave complete relief from pain, and she had no more trouble till November 21st (seven months later), when the same symptoms returned. The physician found the tumor in the same place and of the same size as before, and was told that it returned soon after he ceased to visit her in the spring, and that it had persisted since. He had supplied her with a truss, but she had found it uncomfortable and soon discontinued it. The pain was not referred to the tumor or to its neighborhood. The mixture of ether and chloroform soon gave complete relief to the pain and vomiting, and in forty-eight hours she resumed her household duties. In a week she had another similar attack, and in the next fortnight two more, the same remedy being in each instance

followed by relief in a few hours. For the next three months she continued well, but in the evening of Saturday (March 31, 1877), she was again attacked in the same way. It was thought that the tumor was a little larger than when last seen. Pulse and temperature were normal. The mixture of ether and chloroform now failed to relieve her, and the next morning (Sunday) she was given "ice-pills," and for nourishment iced milk and beef tea. Through the day she was more comfortable, but toward night pain and vomiting returning she received one eighth of a grain of sulphate of morphia subcutaneously, which was followed by a comfortable night. As in her previous attacks, she never referred her pain to the region of the tumor, which, moreover, was not tender, and never gave an impulse on coughing, and was unaffected by short efforts at taxis. Consequently after each examination it was decided that her suffering was probably not due to hernia. On the evening of the next day (Monday) she was found to have had a comfortable day, but pain and nausea had again become urgent. Twenty grains of chloral hydrate by the rectum gave her a fair night, but the next morning (Tuesday) vomiting returned and was fecal in character. Pulse and temperature were still normal. On this day another physician saw her in consultation. Then, as before, there was no pain in the groin, the tumor was not tender, gave no impulse when patient coughed or vomited, was unchanged by moderate taxis.

She had been for twenty years a sufferer from dyspeptic symptoms, was cachectic in appearance, and had lost two adult daughters from chronic abdominal disease, considered to be structural, which diagnosis had been verified in the case of the one examined post-mortem; and it was suspected that the mother was now affected with similar disease.

For five days more the same symptoms continued; vomiting was only occasionally fecal; moderate doses by injection of chloral or morphia gave relief for hours. She was of course gradually failing. At this time another consultation was held, and the question of an exploratory incision over the tumor again raised, but it was thought so probable that her symptoms depended on organic abdominal disease, the tumor so much resembled an enlarged inguinal gland, and she was so nearly moribund that incision was deemed scarcely justifiable. She sank gradually and died forty-eight hours later, ten days from the time of her final attack.

At the autopsy no abdominal organ showed structural disease, unless there was evidence of it in the somewhat enlarged mesenteric glands. On dividing the skin over the inguinal tumor, what seemed like a hernial sac was opened with care, and a portion of omentum the size of a large almond shell was found firmly adherent to the saphenous opening and the lower edge of Poupart's ligament. The existence of intes-

tinal hernia behind this could not be determined till the adjacent abdominal wall had been divided and digital examination of the saphenous opening had been made with care, and when found it could not be reduced or *drawn* in, until a considerable incision had been made in the sharp edge of the semilunar fascia. The incarcerated knuckle was in the ileum, three feet from the ileo-cæcal valve, very small, and by no means occluded the intestine, about four inches of which were black and semi-gangrenous, the discoloration gradually fading off into mere congestion in each direction.

Then it was plain that the blow thirteen months before had caused persistent femoral hernia of the omentum; that from time to time a knuckle of intestine had been caught there, but had escaped again, until the fatal incarceration occurred. Perhaps the case might at no time have been a hopeful one for operation, but it certainly teaches the importance of an exploratory incision in doubtful cases.

Imperforate Hymen with Large Accumulation of Menstrual Fluid. — November 14, 1875, I was summoned to an unmarried American girl, seventeen years of age, who was suffering from dysuria almost amounting to retention, having urinated but once and scantily in twenty-four hours. There was no fever, acceleration of pulse, or pain, except during the attempts to urinate. During the previous twelve months she had had two or more similar attacks, one of which was as severe as the present. She had never menstruated or had any "periodic" symptoms, though at times there had been a deal of what was called "stomach-ache," which appeared on inquiry to have been in the ovarian regions. She was of average height, but quite thin, and rather feeble and quiet; had a decided stoop and a thick and "muddy" skin, disfigured on the face by acne.

Her mother, the buxom mother of six children, never menstruated till her eighteenth year, up to which time her health was poor, and had been healthy and active since. The daughter had, under advice, been kept out of school for a year past and had had tonics and a wholesome mode of life.

The dysuria was considered to be of spasmodic character, probably semi-hysterical, and was treated accordingly. It continued for six hours, when a quart of urine was voided to her great relief, and twice again in the next seven hours she passed water amounting to another quart. This urine was pale, inodorous, clear, and under analysis showed nothing abnormal.

Twelve days later the doctor was again summoned and found her suffering from distressing retention. It appeared that for a week previous micturition had been "troublesome and painful." She was etherized, with the view of overcoming spasm, if that were the cause of retention, but no urine flowed. Proceeding to pass the catheter the vul-

var opening was found to be filled by a protruding tumor, tense, fluctuating, and exactly resembling the unruptured membranes of the second stage of labor, except in being more firm and resisting. Palpation showed the abdomen to be occupied by a median tumor extending considerably above the umbilicus. The margin of the vaginal tumor was found everywhere continuous with the walls of the vagina.

Here, then, was imperforate hymen, and a very firm one; and behind it was fluid. The finger in the rectum found the vagina to be filled with fluid, and in the direction of the womb nothing solid could be felt. The catheter passed in the proper direction and drew off plenty of urine without in the least diminishing the tumor at the vulva or the fluctuation in the vagina. Moreover the abdominal tumor was not solid, and imparted a uniform sensation to the hands. The diagnosis of a large collection of retained menstrual fluid was made, and Dr. C. E. Buckingham was sent for in consultation. He confirmed the diagnosis, and it was agreed that in all probability menstruation had gone on for several years, till the retained fluid had distended vagina and uterus to the utmost, and the limit of toleration had been passed. Gradual evacuation of the fluid being decided on, etherization was renewed, and the largest trocar of an aspirator was thrust through the bulging vulvar tumor, Dr. Buckingham making firm pressure meanwhile on the fundus of the womb above the navel. Strong pressure was required to enter the trocar. It was several minutes before the fluid began to ooze through the canula, thick, dark brown, inodorous, and of uniform consistence. The aspirator was attached and six ounces were slowly withdrawn. Judging that amount sufficient to relieve immediate distress from over-distention, and wishing to empty the womb as gradually as possible without allowing decomposition of the remaining fluid to be set up, we then withdrew the canula and swathed the abdomen. Measurement of the abdominal tumor after aspiration showed it to be seven inches above pubes, one and one half inches above umbilicus, four inches transversely. It was still median, fluctuating, uniform on feel, and slightly movable. The vulvar tumor was decidedly less tense, but still protruded a little. Patient's pulse and respiration were good. It was decided to make no larger opening in the occluding membrane for several weeks unless the patient's safety required it.

The mother, after being informed of the nature of her daughter's sickness, said, in reply to questions, that the girl had for many months found the sitting posture very uncomfortable, as also the act of going up or down stairs, but that within three months she had taken a walk of two miles.

She was comfortable through the afternoon and evening after the puncture (Sunday, December 26th). Several napkins were soaked through by the discharge. On Monday morning her pulse was 104,

temperature, 97°. The discharge from the puncture had soaked through five folds of a "quilt" beside napkins and a sheet, and was somewhat thinner. The abdominal tumor was two and one half inches below the umbilicus, and proportionably smaller in transverse measurement, having been reduced to one third of its original bulk. In the evening the pulse was the same, temperature 101.5°. No tenderness of abdomen, no pain or dysuria through the whole day. The puncture continued to discharge, but less freely, and the tumor had visibly decreased since morning. Through Tuesday and Wednesday she remained very comfortable. The abdominal tumor continued to subside, and had become much less defined. The abdomen was slightly tender. The discharge from the puncture became offensive, and on Thursday a deodorizing injection of a solution of bromo-chloralum was given by the puncture with the effect of removing the stench. That evening the temperature was 103°, and the puncture, which had been contracting, was so small that a knitting-needle would scarcely pass it. It was surprising to find her the next morning (Friday) in good condition, reporting a good night, and with a pulse and temperature neither of which exceeded 100. But before noon she was in great distress, chiefly abdominal. Her countenance was sunken and pinched. Pulse, 110; temperature, 101.8°. Nothing could be passed through the puncture. She was etherized, and with no small difficulty an incision was made at the site of the puncture which would admit the finger into a roomy vagina. Then with scissors the hymen was opened up to the urethra, down to the fourchette, and laterally to each labium minus. Digital examination found the upper vagina as large as that of a woman who had borne several children. Its lining did not feel like mucous membrane, but was coarse and rough. The uterine os could not be felt. There was free escape of the tarry, stinking fluid — certainly a quart, perhaps three pints. The whole amount evacuated since the puncture must exceed a gallon, and has probably been six quarts. The vagina (and the womb) was washed out by a free injection of bromo-chloralum solution, an oiled plug of oakum was put into the vagina, and the patient left perfectly clean and comfortable with a good pulse. The womb could scarcely be felt above the pubes. The occluding membrane where cut by the scissors was one fourth of an inch thick, and contained much connective tissue.

In the evening the pulse was 104; temperature, 101.6°. The abdomen was soft, well sunken, and not tender. She had had another disinfecting vaginal injection. Next day her temperature was 104° in the morning, but it fell to 101° in the evening. She was free from pain or tenderness, and the vaginal discharge had nearly ceased. The quinia upon which she had been put the day before was increased to six grains four times a day. She had to-day the first natural dejection.

In the afternoon of the next day it was found that she had all over the trunk, but more thickly around the waist, a petechial eruption, purplish, raised enough to be felt, persistent when pressed on. She had also a slight, short rigor. At midnight she had vomited, and had agonizing pain in the right iliac region, where alone there was abdominal tenderness. This, it will be observed, was one week after the puncture.

One fifth of a grain of morphia subcutaneously gave immediate relief, which lasted till the middle of the next forenoon, when she had a heavy rigor. In the right iliac region, where the severe pain was felt the night before, there was found, close to the bone, dullness and hardness extending more than two inches longitudinally, and one inch transversely. There was no heat, dryness, or fœtor at vulva. Dr. Buckingham again saw her in consultation. It was plain that blood-poisoning had occurred, and that she was liable to an abscess in the abdomen. It was agreed to substitute brandy for the wine she had been taking, and to give as much of it, together with nutritious liquid food, as she could be got to take and retain; also one and three fourths grains of salicylic acid every two and one half hours. Between one and three o'clock this P. M. she had seven stools, purely fœcal, growing looser as they proceeded, and followed by a sense of relief.

On January 4th another tumor was detected in the hypogastrium, which was not at all tender. She had two good stools. Two days later another but less distinct tumor appeared in the left inguinal region, and on that day there were three loose fœcal stools. Meanwhile the tumors on the right and in the middle were increasing in size, and five days later (January 11th) they had nearly coalesced, the upper part of the right one having risen to a level with the crest of the ilium, but the general surface of the abdomen was not swollen.

A week later, all the tumors were diminishing, and the general abdominal surface was flatter than normal. All this time the patient was slowly improving, her pulse and temperature averaging 100. She could lie in any position since January 11th, and though her stomach was irritable she was enabled by careful feeding to retain a good deal of nourishment and stimulant. There had been no discharge from the vagina, rectum, or urethra, which could pass for pus or serum, or any modification of either. At this date there was a rise in the pulse and temperature; she sighed frequently, but there was no pain or evidence of depression, and the abdominal tumors continued to diminish. If this rise of temperature and pulse for five days were not the consequence of a menstrual effort it is difficult to explain them. After this episode the temperature was usually normal.

To return to the tumors; a week later they had very much diminished, and the abdomen had ceased to be sunken and was like that of a healthy virgin. Late in April, four months after the puncture, no

tumors could be detected, nor any dullness or tenderness over their old site, and there was a natural amount of subcutaneous fat over the abdomen. It is to be observed that these tumors never dented on pressure, never diminished after free purging. Even that in the left inguinal region was not affected by full enemata.

The petechial eruption before mentioned, which was observed the day after the hymen was freely opened, had not wholly disappeared in a fortnight; when it was three days old about half its spots had become miniature pustules. These gradually dried away, while the others as gradually became less prominent and less livid.

At this time the oakum plug which had been worn in the vagina was changed for sea-tangle tents, and these again for Barnes's dilators. Three months after the operation, a vaginal examination being made, the finger entered with tolerable ease, the orifice yielding to gradual pressure; the vagina was more roomy than is usual in virgins, its lining was normal mucous membrane, no longer leathery and rough. The womb was movable, and its mouth, which was perfectly distinct, was more elongated than the normal virgin os.

She menstruated scantily February 3d and March 8th; normally April 11th (fourteen weeks after the operation), and every month since. She now weighs thirty-four pounds more than when she left her bed, and is in every way healthy and happy.

The abdominal tumors were probably the results of limited peritonitis, giving rise to effusions of lymph, but never going on to suppuration. Their progress from detection to disappearance occupied *ten weeks*, and it was curious to see how independent their course seemed to be of the general condition of the patient.

It has been suggested as an improvement in the operative treatment of such cases that after the *first* withdrawal of fluid some disinfectant should be injected at the puncture, with a view to avoid septicæmia, while the advantages of gradual evacuation are still retained. The risk attending sudden and complete evacuation is said to be less from so-called "shock" than from peritonitis induced by laceration of existing adhesions as the womb suddenly settles down into the pelvis.

RECENT PROGRESS IN MEDICAL CHEMISTRY.¹

TOXICOLOGY.

BY E. S. WOOD, M. D.

Fuchsine in Wine. — Numerous processes have been given for the detection of fuchsine in wine, and the subject has been considered of so much importance in France, on account of the liability of this

¹ Concluded from page 17.

coloring matter to contain arsenic, that the selection of the most convenient and best method for its detection was referred to a committee of the Société de Pharmacie, consisting of MM. Latour, Yvon, Wurtz, and Marty, whose report¹ recommends two methods for detecting this fraudulent adulteration. One, called the Roméi process, which is sufficient for ordinary commercial work, consists in adding to fifty cub. cent. of the suspected wine ten cub. cent. of a solution of subacetate of lead (specific gravity = 1320), warming and filtering. After the filtrate has cooled, add ten drops of acetic acid and ten cub. cent. of amyl alcohol, and shake the mixture vigorously. The amyl alcohol after separating from the wine will be found to be colorless if the wine were pure, but if it contained fuchsine the amyl alcohol will be colored rose or cherry-red, if rosolic acid (another aniline product) the color will be yellow, and if litmus the color will be rose or violet. Decant a portion of the amyl alcohol into a test-tube, add an equal volume of dilute ammonia, and shake. If the amyl alcohol becomes decolorized, and the ammoniacal solution remains colorless, the coloring matter present must have been fuchsine. If, however, the amyl alcohol becomes decolorized, but at the same time the ammoniacal solution is colored violet-red, the coloring matter present was rosolic acid, or if colored blue-violet, litmus.

The second method is the most delicate, and is the one which should be performed in all legal analyses. This method was first proposed by Falières, afterwards modified by Jacquemin and Ritter, and still later by Fordos. It consists in adding to ten cub. cent. of the suspected wine ten drops of ammonia water, shaking, and finally adding ten cub. cent. of chloroform. The ammoniacal solution and the chloroform should be gently mixed together, and the mixture poured into a burette or a separating funnel. When the chloroform has separated, it is to be drawn off into an evaporating-dish and evaporated, a couple of threads of silk being first introduced. On the evaporation of the chloroform the silk becomes dyed with the fuchsine. By this method the fuchsine can be detected in wine, when it is present in the proportion of 0.00005 gramme to the liter, or one part in 20,000,000. If the coloring matter on the silk is fuchsine it becomes decolorized by a drop of ammonia water.

When only traces of fuchsine are present, the most delicate method for its detection is that recommended by Bouillon,² but it has the disadvantage of requiring a large amount of wine. This method is to evaporate five hundred cub. cent. of the wine to about one hundred and twenty-five cub. cent., add twenty grammes of crystallized baric hydrate, shake, filter after the mixture is cool, and wash the pre-

¹ Journal de Pharmacie et de Chimie, June, 1877, page 579.

² Répertoire de Pharmacie et Journal de Chimie médicale réunis, 1876, page 707.

cipitate until the filtrate has a volume of one hundred and twenty-five cub. cent. This filtrate should be shaken in a flask with fifty or sixty cub. cent. of ether. Decant the ether into an evaporating-dish, add to it three or four drops of dilute acetic acid, and submerge in the mixture a bundle of white silk composed of ten threads, one cm. in length. If much fuchsine is present the ether will become colored immediately on the addition of the acetic acid, but if only a trace is present the silk will become colored only after the evaporation of the ether, in which case the aqueous fluid remaining should be warmed gently, which facilitates the fixing of the color upon the silk. In this manner one part of fuchsine in one hundred million parts of wine (0.00001 gramme = about $\frac{1}{1000000}$ grain in one liter) can be detected.

As to the physiological effect of *pure* fuchsine authorities differ. The weight of evidence, however, is greatly in favor of its being entirely harmless. MM. Feltz and Ritter¹ state that it will produce albuminuria in both man and animals. In their experiments upon dogs they found in the urine albumen varying in amount from seven to thirty-two parts per one thousand, granular, fatty, and sometimes epithelial casts. After death they observed degeneration of the cortical portion of the kidneys. These results have not been seen by other investigators. MM. Bergeron and Clouet² deny that such results are produced by *pure* fuchsine, and consider them due to arsenical contamination. Eulenberg and Vohl³ also consider pure fuchsine harmless.

Arsenic. — Rouyer⁴ has made some experiments upon the fatal dose and antidote of some of the compounds of arsenic. He finds that, although the freshly precipitated sesquihydrate of iron is an antidote for arsenious acid, it has no effect in counteracting the action of sodic arseniate or potassic arsenite (Fowler's solution), but that a mixture of a solution of the sesquichloride of iron and the oxide of magnesium will counteract the effect of these salts as well as of arsenious acid itself, and hence this mixture is always preferable to the hydrate in cases of arsenic poisoning. The proper method of administering this antidote is first to give the officinal solution of the sesquichloride of iron, and follow it in fifteen minutes by the magnesian oxide in the proportion of four grammes of the latter to one hundred cub. cent. of the former. In one hour after the administration of the antidote a cathartic should be given. The ingestion of acid drinks and lemonades should be avoided during the entire treatment, since the compounds formed by the union of the arsenic with the antidote are soluble in acids.

Chronic Lead Poisoning. — Dr. Gilbert, of Havre, reports⁵ two

¹ Répertoire de Pharmacie et Journal de Chimie médicale réunis, 1876, page 428.

² Ibid, pages 366 and 390.

³ Vierteljahrsschrift für gerichtliche Medicin, xii., No. 2.

⁴ Répertoire de Pharmacie et Journal de Chimie médicale réunis, 1876, page 528.

⁵ Ibid, page 395.

cases of chronic lead poisoning of very obscure origin. One was that of a newspaper editor, who was in the habit of using daily large numbers of red wafers for sticking together newspaper clippings. These wafers were colored with red lead, and were always moistened by being introduced into the mouth. The symptoms consisted chiefly of anæmia and an obstinate dyspepsia. The attacks of colic were very rare, and there was no constipation.

The second case was that of a professor in the university, and was finally traced to the ingestion of large numbers of *cachous*, which upon analysis proved to contain in each box 0.20 gramme of lead, which was a constituent of the foil surrounding each *cachou*. The amount eaten exceeded a box in two days. Lead was detected in the urine after treatment with iodide of potassium, although none could be found before the iodide was given. This patient never had constipation or colic, but the anæmia was very marked, and there was a slight blue line on the gums.

The following analyses of so-called tin-foil¹ show how totally unfit many of the specimens are as a wrapping material for articles of food. The specimens analyzed were taken at random:—

Tin.....	96.53	85.34	71.30	58.43	40.63	0.00	1.90
Lead.....	3.10	14.06	28.09	41.01	58.00	98.64	95.41
Copper.....	0.31	0.60	0.61	0.36	1.31	1.34	2.73
Total.....	99.94	99.90	99.90	99.79	99.93	99.98	100.03

Hydrocyanic Acid.—Dr. L. Volz² reports an unique case of prussic acid poisoning, in which ferrocyanide of potassium was ingested, and the hydrocyanic acid generated in the stomach by swallowing immediately afterwards a mixture of hydrochloric and nitric acids. The post-mortem appearances were chiefly those of poisoning by the mineral acids, but death was evidently caused by the hydrocyanic acid developed by the decomposition of the ferrocyanide of potassium. The contents of the stomach were found upon analysis to contain hydrochloric and nitric acids, Prussian blue, cyanide of iron, a small amount of undecomposed ferrocyanide of potassium, and free hydrocyanic acid, which was detected by distilling the contents after neutralizing them with bicarbonate of potassium, and setting free and volatilizing the hydrocyanic acid by passing a current of carbonic anhydride through the mixture in the retort.

But one other case of poisoning of this nature is reported. In this case the ferrocyanide of potassium, which was first taken, was decomposed by a solution of tartaric acid. Death took place with all of the symptoms of prussic acid poisoning.

Strychnia.—Experiments were made by A. Huguet³ to disprove a

¹ Vierteljahrsschrift für gerichtliche Medicin, January, 1877, page 179.

² Vierteljahrsschrift für gerichtliche Medicin, January, 1877, page 57.

³ Répertoire de Pharmacie et Journal de Chimie médicale réunis, 1876, page 686.

statement made by Dr. Schuler in a legal case, that "six to fifteen centigrammes of pure strychnia or of one of its salts placed upon the internal angle of the eye of a man would be sufficient to destroy life rapidly and without leaving any traces; the discovery of the poison, which could only be detected in the lachrymal canals and mucous membrane about the eye, would be very difficult, especially as the criminal or even the victim himself could remove it." Ten centigrammes of the sulphate of strychnia introduced into the eye of a dog weighing twenty-four kilogrammes proved fatal, although about one half of the substance was lost. By Dragendorff's process strychnia was detected very plainly in the eye and surrounding tissues, and a trace of strychnia in a mixture of the stomach, liver, and blood. No strychnia could be detected in the brain and cerebellum.

Belladonna. — A blue fluorescent coloring matter has been discovered in all parts of the belladonna by R. Fassbender.¹ This can be detected in very dilute solutions, and has been found in all of the extracts of belladonna which the author has examined. It can be isolated by crushing with a little water two of the unripe berries, evaporating the filtrate to dryness, extracting the residue with alcohol, and digesting this extract, which reddens litmus paper strongly, with animal charcoal, which retains all of the coloring matter. The charcoal is then treated with alcohol to which two drops of ammonia water have been added, filtered, and washed two or three times with alcohol. The fluid thus obtained is strongly fluorescent, and even when diluted with two hundred cub. cent. of alcohol has a distinct blue color. The residue left after evaporating this solution to dryness gives a blue solution if treated with ammonia water. The recognition of this substance may prove of great value in the detection of poisoning by belladonna.

Crystallized Bromide of Conia. — Mourrut² has succeeded in producing crystals of this substance, and in obtaining a preparation of conia which has a constant composition, and from which solutions having a certain strength and a definite physiological action may be made.

The bromide of conia is prepared by treating conia with a dilute solution of hydrobromic acid until the mixture has a neutral reaction, and crystallizing. The crystals can be obtained from the colored as well as the colorless conia by repeated recrystallization, but with a considerable loss of material. Bromide of conia is a tolerably stable compound, but should be kept in a tightly stoppered bottle, and in a dark place. It crystallizes in the form of prismatic needles, which are soluble in water and alcohol, slightly soluble in ether and chloroform, non-deliquescent, odorless, and with but little taste.

¹ Berichte der deutschen chemischen Gesellschaft, ix., page 1357.

² Répertoire de Pharmacie et Journal de Chimie médicale réunis, 1876, page 369.

PROCEEDINGS OF THE BOSTON SOCIETY FOR MEDICAL OBSERVATION.

O. W. DON, M. D., SECRETARY.

APRIL 2, 1877. *Extra-Uterine Pregnancy.* — DR. HILDRETH read a paper upon this subject.

DR. TUCK asked if there was any blood found in the peritoneal cavity, and if the diagnosis of internal hæmorrhage was made before death.

DR. HILDRETH replied that effusion of blood was diagnosed, and at the post-mortem examination nearly three quarts of coagulated blood were found occupying a space corresponding to the line of dullness marked out over the abdomen before death. The subject of transfusion was considered, but as hæmorrhage was still taking place, and as his experience, when attempts had been made to transfuse in other cases, had not been successful, both he and Dr. Driver thought it not advisable to try it in this case.

DR. FOLSON referred to two cases reported by Dr. Osgood in 1802, in both of which pregnancy took place in the left Fallopian tube. Both cases went to the usual term, and labor pains set in at the end of the ninth month. Each of these two patients bore children subsequently. One died of an abscess rupturing through the Fallopian tube into the rectum. At the death of each the bones of a fetus were discovered.

DR. BAKER read the following case: A. W., a native of Germany, twenty-five years of age, was first seen by me July 3, 1875. She had been married five years, and had given birth to one child within a year after marriage, and had also aborted at six weeks one and one half years before my first seeing her.

Her menstruation, which began at thirteen years of age, had been regular in its occurrence, but after her abortion she had suffered from dysmenorrhœa, the pain beginning with the flow, and continuing two days. At the time of her abortion the patient tried to keep about, as usual, but the flow continuing for three weeks she became so much exhausted that she was obliged to remain in bed; the discharge lasted for two weeks after this, the latter part of the time being very offensive in character. On examination there was found to have been a slight bilateral laceration of the cervix, extending to its crown, which had partially healed, showing a short cicatrix on each side. There was also found a marked constriction of the canal of the cervix at the os internum.

The delicate uterine probe passed this stricture readily, but the Simpson's sound only after a few moments of gentle but steady pressure against it. The larger Peaslee's sound would not pass at all. The menstruation, coming on a few days after this examination, was quite natural and entirely free from pain. For the next three months, except on one occasion, the sound was passed, and this stricture dilated a few days before the expected menstruation with the same beneficial result; at the exceptional time, however, the patient failing to come for treatment, the dysmenorrhœa was as much complained of as ever.

On November 10, 1875, the patient entered the Free Hospital for Women for an operation to overcome the stricture of the uterine canal. An examination at that time showed a like condition to that already given, together

with a normal position of the uterus and a depth of its cavity of two and three fourths inches.

Five days after her admission, I divided the stricture, taking the usual precautions against hæmorrhage and the re-forming of the stricture. On December 8th, having menstruated naturally and without pain, and the stricture being entirely overcome, so that Pease's sound passed readily to the fundus of the uterus, she was discharged well.

For two months after returning home she menstruated regularly and naturally, the last menstruation ceasing February 6th. In March, at the time when the catamenia should have appeared, she had considerable pain but no flow, and the same thing was complained of in April. The patient now felt sure that she was pregnant. In May she was confined to the bed with severe cramps in the lower portion of the abdomen, and there was some appearance of menstruation. She passed one large clot of blood, which she states the woman in attendance picked to pieces, "thinking there might be a baby in it," but nothing of the kind, however, was found. After being in bed about two weeks, still feeling very weak, she was able to get up and move about a little. There was no appearance of menstruation early in June when it should have occurred again, but in the latter part of that month I was called to the patient with the statement that she was flowing. There was but a very slight discharge of blood, scarcely enough to soil one napkin in twenty-four hours; the cervix, however, was somewhat softened and high up in the pelvis, and there was a tumor above the pubes about the size of the gravid uterus at four months. This tumor was firmly elastic, filling the left iliac region, and, near the pubes, extending across the median line somewhat into the right inguinal region. It was not very movable in the abdominal cavity, although somewhat so; it was flat on percussion and tender on pressure; no fetal heart could be detected, but the bruit de souffle was very distinct at the lower part of the tumor. The breasts were enlarged, and milk had flowed from the nipples; nausea and vomiting had been complained of through the second and third months, but had ceased some time previous to my visit. Patient was suffering some pain of a paroxysmal character. The temperature was 102° under the tongue; pulse, 108. She was kept in bed nearly four weeks, and during the early part of that time was under opiates. In the latter part of July she was able to be about for a few days, although suffering from "cramps in the stomach" at night, and during this time she felt quickening several times. In the early part of August, Dr. Doe saw the patient during my absence from the city, and reported that he found no signs of life of the fœtus; there was however, no menstruation until the very latter part of August, when, for a period of three weeks, she flowed a very little at intervals of two or three days. I saw her early in September, and found her pale, emaciated, her face giving evidence of long and severe suffering. She looked very much like a person having malignant disease. The size of the tumor had much increased, rising to a point two inches above the umbilicus, in the left umbilical and iliac regions, and below the umbilicus, crossing the median line and unequally extending into the right inguinal region. She complained of some pain, although she was able to be about her room during the month of October, and the tumor,

during that month, became somewhat diminished in size. In the latter part of October an examination of the interior of the uterus was made by the passage of the probe, which entered four and one half inches into that portion of the tumor which was in the right inguinal region. The position of the uterus was one of left lateral version, and by palpation its body could be distinguished from that of the tumor, which seemed to have been developed from the left horn of the uterus. This tumor was aspirated without any satisfactory result, the needle being inserted through the abdominal parietes. After the early part of November, when her term of pregnancy should have been completed, she gained in health and was soon able to attend to all her household duties. Menstruation did not recur until December, 1876, since which time it has gone on regularly and quite naturally.

The tumor has gradually diminished in size, until now it is not more than two thirds the size that it was when previously described.

In reviewing the case and making the diagnosis of extra-uterine pregnancy, the various conditions which might give rise to this tumor were severally considered, such as cystic disease of the ovary, adenoma, fibroid tumor of the uterus, malignant disease, renal cyst, enlarged spleen, impacted feces, dilated bladder, etc., but each, it was thought, was satisfactorily excluded, while the history of the case, with the exception of the foetal heart-sounds, which we were unable to distinguish, was not unlike that which we meet with in pregnancy. Of course nothing but an operation, the ulcerating through of the foetus externally or internally into the bladder or intestines, with the discharge of portions of the foetus, or an autopsy, can make the diagnosis of extra-uterine pregnancy absolute.

DR. CHADWICK asked whether at any time during the course of the disease decidual membranes had been expelled from the uterus, and whether any foetal parts had been detected in the cyst by palpation.

DR. BAKER replied that the catamenia had been regular while the patient was in the hospital under his care, and there had been no subsequent history of any membranes being thrown off. With reference to the presence of foetal parts, he had not been able to detect them.

DR. CHADWICK said that the expulsion of the decidua from the uterus rarely, if ever, failed to occur during the course of an extra-uterine pregnancy or at its completion. Moreover, if the cyst had risen as high as the umbilicus, and the gestation had advanced as far as the fifth month before the death of the foetus, as was claimed, it would seem as though ballottement should have been obtained if there were a foetus present. Enlargement of the uterus would certainly have occurred in case of extra-uterine pregnancy, but might equally well have been caused by the growth of an ovarian tumor which had contracted adhesions with the uterus; this had occurred in an unpublished case in which he had performed ovariectomy over a year ago. It was not uncommon for an ovarian cyst to be arrested in its growth for a long period, after it had enlarged rapidly for a few months.

As regards the unsuccessful attempts made by Dr. Baker to obtain fluid from the cavity, Dr. Chadwick said that he knew of no fluid which would not flow through the largest of Codman and Shurtleff's aspirator needles, on re-

peated introductions, unless it were the ropy, mucilaginous fluid peculiar to an ovarian cyst. In view of the absence of many if not all of the characteristic signs of extra-uterine foetation in this case, he should hesitate to accept the diagnosis as firmly established.

DR. BAKER said it was not the history of ovarian cysts to elongate the uterus, and he had never seen or known of a multilocular cyst producing such constitutional symptoms within four months from its origin as his patient showed, neither would it be likely to cease increasing in size, or diminish after growing six or seven months.

DR. HILDRETH asked Dr. Baker where he located the pregnancy, and whether in tubal pregnancy the sac did not usually rupture.

DR. BAKER replied that he placed the pregnancy in that portion of the Fallopian tube which passes through the left horn of the uterus; he located it here for the reason that had it been farther along in the tube, it would probably have ruptured at or about the third month.

DR. HILDRETH remarked, in regard to the diagnosis of extra-uterine pregnancy, that casting off of the decidua was the most important sign of all; enlargement of the breasts was not an infallible indication, as this sometimes occurs in difficult menstruation. Dr. Hildreth added that where pregnancy has taken place in the horn of the uterus, delivery has been effected by dilating the cervix and delivering through the uterus.

DR. AMORY inquired of Dr. Baker how he excluded fibroid in his differential diagnosis, saying that four years ago he saw a case with Dr. Reynolds which they both considered to be fibroid of the uterus. Soon after the patient was given two so-called electric baths by a female quack at Somerville, which were followed by the expulsion, per vaginam, of a certain fleshy substance, a specimen of which was subjected to a microscopical examination by Dr. Fitz, who reported that possibly some of the softened tissue might resemble villi of the chorion. The tumor gradually reduced about three months after the baths, though the patient had not subsequently submitted to a vaginal examination.

DR. BAKER replied that a fibroid would not have grown to such a size in four or five months; it would have been movable with the uterus, and would not have been attended with the marked symptoms of pregnancy which were present in this case.

APRIL 16, 1877. *Paralysis following Epilepsy.* — DR. INCHES read a paper upon this subject.

DR. WEBBER remarked that paralysis is not very rare after epilepsy, but is generally of short duration, and the patient soon recovers from it. It is unusual to have it so persistent as in Dr. Inches' case; undoubtedly here there was some organic lesion which gave rise to it. Dr. Webber questioned whether the suppression of urine may not have given rise to uræmic poisoning and so favored or caused the lesion which was shown by the paralysis, and which was more likely a hæmorrhage, the paralysis probably not existing when the patient was first seen, but occurring at the time of the second slight convulsion.

DR. FISHER said that the cases of paralysis following epilepsy which he had seen were transient and evidently due to the extreme exhaustion follow-

ing a series of severe convulsive attacks; in this case there had been but one fit which was followed by paralysis of a lasting character. It was not improbable that some other pathological condition had supervened in a case of epilepsy, or the case might be one of commencing general paralysis.

DR. FOLSOM remarked that he had seen two cases of paralysis following epilepsy, in one of which there was coincident valvular disease of the heart, which he thought might perhaps have given rise to embolism.

DR. INCHES said there was no cardiac lesion in the case he had reported.

Pigmented Sarcoma of the Choroid. — DR. WADSWORTH showed an eye containing a pigmented sarcoma of the choroid, which he had removed a few weeks before. The patient, a woman, fifty-eight years old, entered the City Hospital about the end of January, with severe pain in the right eye and the right side of the head. She stated that eight days before she had a sudden attack of pain in the right cheek, soon extending to the eye and the side of the head, the eye at the same time becoming blood-shot. When seen by Dr. Wadsworth the eye was moderately congested, the cornea slightly hazy, the pupil somewhat dilated, the iris flattened against the cornea and looking as if degenerated. Tension was decidedly increased. There was no perception of light, and no reflex from the fundus. Although the entire want of the anterior chamber and the appearance of the iris pointed to a disease of long standing, yet the woman was positive in asserting that the eye was perfectly good until eight days before. Iridectomy was advised and performed, but on account of the degenerated, friable condition of the iris, some difficulty was experienced in seizing and drawing it out. The operation had no effect, or scarcely any, in diminishing the tension; it did, however, relieve in part the pain in the eye, though it was complained of afterwards in the back of the head. Ten days later the eye was enucleated.

On opening the eye, a tumor of the choroid was seen, beginning a little to the outer side of the opticus and extending forward beyond the equator. This occupied about one eighth of the globe. The retina was entirely separated and folded together so as to form a narrow cone extending from the optic disc to the lens and ciliary processes. The space between the retina and choroid was filled by a darkish fluid in which were blood corpuscles. The tumor was strongly pigmented and made up mainly of round and oval cells.

DR. WADSWORTH remarked that this case offered a very good example of what is not unfrequently observed, that a person may in great part or entirely lose the sight of one eye without being conscious of it until attention is excited by some accident or an attack of inflammation. In this case, blindness must have existed for a very considerable time; very probably the inflammatory attack was excited by a hemorrhage from the tumor or choroid.

Dyspepsia following the Subsidence of Epileptic Seizures. — DR. BOWDITCH mentioned the following case: A man, thirty-four years old, had been from his youth a great smoker, until at the age of eighteen, owing to illness or hemoptysis, he gave up the habit, though occasionally now indulging in it.

Seven and a half years ago he began to suffer every day from epileptic convulsions and pain in the vertex. For this he tried many remedies, and finally consulted physicians abroad. He gradually became better, though ex-

perienicing more or less of the trouble until the present pain began, which does not prevent him from attending to his business, that of a government official. During the past two years he has been free from the pain in the head and the convulsions, excepting a recent slight epileptic attack, but he now suffers from pain in the epigastrium, coming on every day. There is no pain or tenderness on pressure; it is not increased by food, and often a hearty meal will drive it away. The bowels are regular, the patient looks pretty well, and all the bodily functions seem to be normal. Dr. Bowditch said that neither he nor Dr. Knight could detect any abnormal symptoms. There seemed to be no organic disease, but the pain at the epigastrium came on in place of the epileptic attacks and the pain in the head. He had never received any injury to the head. Subnitrate of bismuth, in doses of from five to ten grains, would always give temporary relief. Sherry, quinine, and aconite and chloroform liniment exerted no beneficial effect.

DR. WEBBER referred to a case of epilepsy, in which the first attack came on after forced imprudence in diet; every subsequent attack was preceded by an uncomfortable sensation at the epigastrium, and this the patient often experienced as a *petit mal* after the epileptic attacks were relieved by bromide of potassium.

DR. INCHES mentioned a case of epilepsy, in which the first attack came on after the application of leeches to the knee. This attack at first, on account of certain symptoms, opisthotonos, etc., suggested tetanus, but on further examination proved to be an epileptic seizure due to syphilis, and progressed very favorably under the use of iodide of potassium.

SEWERS AND PARKS.

WHEN Boston contained fifty thousand inhabitants it was considered one of the pleasantest summer resorts in New England; people flocked here from the country towns; there was no overcrowding of the population in any portions of the city; the common was a park of unexampled magnitude, and the few wooden conduits called drains were readily cared for or reconstructed by any sensible citizen who might get an appointment to that honorable office. Most of the filth of the city was collected in privies, and no more comprehensive idea of sewerage existed than to build a covered drain of some sort, generally wooden, by the shortest line from the point of starting to the nearest body of water, whether a mill pond, ditch, canal, brook, or open harbor; and the same ideas have prevailed, more or less, in the sewer department until the present day, when twenty million gallons of sewage are discharged daily by several dozen outlets under our very noses, a large part of it having become foul and putrid, and having permanently deposited large quantities of filth in the sewers themselves, through the stagnation in flow caused by tide-gates and bad levels. The law is not entirely at fault for this failure in the sewer department to grow with the growth of the city, for it expressly provides that the city engineer shall have the general supervision of the sewers, and, twenty years ago, the superintendent of sewers was not even a civil engineer. But custom has

recently put the department on an independent footing, so that, unlike many other cities, Boston has not felt the necessity of placing so important a work under the most accomplished talent, even when the introduction of Cochituate water complicated very much what was formerly a simple problem.

The famine fever in Ireland, the growth of our manufacturing industries, and the construction of railroads brought large numbers of foreigners to America, and in Boston we housed them by crowding to their utmost limit old residences built for private families, shanties, and shops, while the ever-increasing demand for more area was met by filling with good, bad, or indifferent material more and more of the ponds, canals, puddles, and marshes on our outskirts. Of course, we soon had an indigent class living under nearly all the bad circumstances of older cities, and our best houses were soon connected with old and new sewers imperfectly constructed, badly arranged, and on flats.

For these evils all classes alike at last required some remedy. For bad sewerage the community demanded at least an expert recommendation, and, in response to this demand, a commission was appointed, whose plan, already before the city, has met with singular favor. It was not to be expected, however, that this would be accepted on the authority of the commissioners alone, and it was therefore proposed that forty thousand dollars be appropriated out of the city treasury for further investigations under the charge of our city engineer, one of the most able and accomplished gentlemen in his profession. The aldermen passed the necessary order by unanimous vote, the council by fifty-one yeas to five nays, and the thorough researches made accordingly under the immediate direction of Eliot C. Clarke, C. E., have simply resulted in strengthening the position of the sewerage commissioners. This report will probably be laid before the city council this week.

The work proposed by the sewerage commission for Boston was estimated by them to cost \$3,746,500; but later and more exhaustive calculations by the city engineer show that the fourteen and a quarter miles of intercepting sewers, with all accessories, can be completed for about one hundred and fifty thousand dollars less than that sum. Undoubtedly if this work is undertaken soon, as there seems a fair prospect that it may be, there will be an effort to have it done under the old sewer committee and sewer department, where the new plans have thus far found their only serious opposition; but it cannot be supposed that a work so vitally affecting such important interests will be finally intrusted to other than the most competent men to be found in the country.

Of course, a certain although not extravagant improvement in the health of the city must follow. We may even not be able to detect it in a lessened "death-toll," but it will be not less sure, and will affect chiefly those portions of our population who spend most of their time in houses, namely, infants and young children, among whom Dr. Curtis has shown that our "undue and preventible mortality occurs mainly." This is so much a matter of necessity that any unnecessary delay in it must be fully justified before our citizens.

No community, however, has reached a high grade of civilization which is satisfied with necessities alone, and we shall before many years, when land will be more reasonably bought, be called upon to spend several million dollars for a less immediate need, or parks, with which we are now but poorly provided,

and which will be ridiculously inadequate when we become a city of a million inhabitants. It has been argued that our splendid suburbs occupy the place of parks, but they do so to only a very limited extent, as they are not accessible to our hard-working population, who must remain in the city during the heat of the summer, and who ought to be provided with breathing places for their leisure hours. Many of us, in the days of our dispensary practice, have sent dozens of pale children to squat on the bridges and wharves to get the air which is better than medicine, and we have thus saved many lives in these rude parks. But more than this is wanted for the thousands. No one who has seen in Europe the laboring classes rushing for the parks when the day's or week's work is over, or who has gazed at the hundreds of babies and children filling them at all times of day, can doubt their immense value in saving life and in laying up stores of strength to be called upon in time of need. The immense sacrifices, too, now making in the old English cities to open parks to the people will cause any expense we may undertake to seem small. If, with its low death-rate, London has the finest main drainage scheme in the world, so has it the most acres of parks in all the cities; and, on the same basis, when our thirty odd square miles contain a million inhabitants, we ought to have one thousand acres in parks. The question of locality is not to be decided here, but let us hope that the poorer classes will be well provided for. Among other things it has been suggested that an island be reserved in the harbor for that purpose, to be reached by cheap steamboat excursions. The project at present under consideration by the city government of beautifying the back-bay lands, although not as comprehensive as it might be from a sanitary or a pleasure-giving point of view, is not without its advantages, and is certainly a step in the right direction.

MEDICAL NOTES.

— The *Journal de Médecine* for June mentions among the noticeable scientific events of the month the presence of the Emperor of Brazil at the Academy of Medicine. The Emperor, who is corresponding member of the Academy of Sciences, wished to see this branch in session, and a special meeting was called for the purpose.

— The latest report of the measures in force in the different provinces in India, says *The Lancet*, towards exterminating wild animals and venomous snakes shows that upwards of 21,000 persons and 48,000 head of cattle were destroyed in one year by wild animals and venomous snakes; that 22,357 wild animals and 270,185 venomous snakes have been killed, and that 120,015 rupees have been expended in rewards.

— The following hint to cigar smokers is copied from the *Medical and Surgical Reporter*: Some smokers puncture the end of the cigar previous to lighting it; some bite off the end; others cut it smoothly with a knife. The latter is preferable, as may be judged from the case of a girl reported in *The Lancet*. She had an ugly chancre on her lip. Independent of the question as to how she became possessed of the sore, the interest of the case (and a melancholy one it is

for smokers) centres in the occupation by means of which the girl got her living, for she had been pursuing it for a period of three weeks with this sore on her lip. She was employed in a cigar manufactory, where her work consisted in rolling the outer leaf round the bulk of the cigar, and when she came to finish off the end, which is put into the mouth, the custom was to bite the superfluous material off with her teeth, making the ends to "stick with a lick." The girl naively supposed that some poison had got from the tobacco into a small crack of the lip. But how much poison is it possible got from the lip among the tobacco? She estimated the number of cigars completed in one day at twenty dozen!

BOSTON LYING-IN HOSPITAL.

CASES OF DR. W. L. RICHARDSON.

[REPORTED BY E. D. PETERS, HOUSE PHYSICIAN.]

Case of Threatened Mammary Abscess from Ulceration of the Nipple.—A. F., primipara, twenty-two years old, entered the hospital January 10th, and was confined on the 21st, the labor being normal.

On the third day the milk appeared in the breasts, accompanied by the usual changes in the temperature and pulse. Both mother and child did perfectly well until the eighth day, when the left nipple became very sore, and a small ulcerated patch was seen. The next day the left breast was swollen, hot, red, indurated, and painful, so that the patient cried out even from the contact of the bedclothes.

The breast was gently rubbed with camphorated oil, during which process the milk flowed out in considerable quantities, and the induration and pain for the most part disappeared. The ulceration of the nipple, however, became decidedly worse. Mild astringent washes were used, the breast meanwhile being supported in a sling. Nursing from that side was prohibited, the right breast furnishing more milk than the child required.

On the tenth day the ulcerated nipple had a healthier appearance, and there was no tenderness in the breast. The milk was rapidly diminishing, though there was still a great abundance in the right breast.

On the eleventh day the nipple was much better, and the milk had disappeared. This state of things continued, and the patient was discharged on the twenty-third day with two healthy breasts, the left one being considerably the smaller and containing no milk, the right one being full of milk of excellent quality, as shown by the healthy and well-nourished infant, which derived its support entirely from this single breast.

The marked improvement which followed the withdrawal of the child from the affected breast was very striking. The breast presented every evidence of a coming mammary abscess, the origin of which was undoubtedly due to the extensive ulceration of the nipple. That such ulcerations are sufficient to produce a mammary abscess of a serious character there can be no question, and the immediate cessation of nursing from such a nipple seems to be unquestionably the first step toward a successful effort to prevent the occurrence of one of

the most painful and troublesome complications which the obstetrician is called upon to treat.

Case of Recurring Malarial (?) Symptoms following Delivery. — J. C., twenty-eight years of age, was delivered of her eighth child at the Boston Lying-in Hospital, March 14, 1877.

On March 16th the milk appeared, accompanied by the usual rise of temperature and pulse.

On the following night the patient had four or five distinct chills, followed by a well-marked febrile reaction. In the morning, however, she felt perfectly well. Pulse 84; temperature 98°. Lochia and milk normal. As evening approached the chills again began, followed as before by fever, and on the morning of March 18th she was ordered three grains of sulphate of quinia every three hours.

At night there were two distinct although slight chills, causing but little discomfort; the next night no chill.

The quinia was reduced to three grains three times daily. The patient continued to improve, and had only one very slight chill during the remainder of her stay in the hospital. She was discharged well, March 28th.

On the first occurrence of the chills the patient was carefully questioned about her previous history, and it was discovered that during her seventh pregnancy and confinement, about two years before, she was living on the lower floor of a tenement building in an unhealthy portion of New York city. Her health was good until a few days after her confinement, when she had for several consecutive nights frequent and severe chills, accompanied by marked constitutional disturbance, which disappeared entirely in a few weeks, to reappear again in Boston after the birth of her next child.

Case of Chorea of Long Standing; Disappearance after Delivery. — L. B., primipara, aged seventeen, entered the Boston Lying-in Hospital March 14, 1877. Ever since she could remember she had been subject to a constant and well-marked twitching of the hands, feet, and facial muscles, which had notably increased after an attack of shingles which occurred two years ago. The condition of pregnancy had had little or no influence upon these choreic movements. During her labor, which terminated ten hours after her entrance, the twitchings were very marked, her hands executing frequent and strong involuntary movements. After the second stage of labor was completed these movements ceased abruptly, and during her convalescence did not reappear at all.

She left the hospital on the fourteenth day, having shown no signs of choreic symptoms since her delivery.

Patients who have suffered from chorea in childhood are especially liable to a recurrence of the disease during pregnancy. In such cases the appearance of the chorea is indicative of serious mischief to either the mother, the child, or even to both. Dr. Robert Barnes reports the notes¹ of fifty-seven cases in which an attack of chorea complicated pregnancy. In seventeen of the cases the mother died; in two premature labor was induced; in ten the child was born with chorea; in two the child was born dead at full term; and in eleven cases the mother aborted. In this case no effect whatever seemed to result

¹ Transactions of the London Obstetrical Society, x. 147.

from the complication of pregnancy with a chorea of long standing. The child was born apparently healthy, but died within thirty-six hours. Neither the symptoms nor the subsequent autopsy threw any light upon the cause of the child's death.

[Since the above report was written the following additional case has occurred:—

M. R., aged twenty-two, entered the hospital June 3d, in labor with her second child. When fourteen years of age she had an attack of chorea which lasted about three months, limited to the right half of the body. The catamenia appeared two months after the chorea ceased. She had no return of the chorea until three months ago, when she was about six months pregnant. The muscles of the right arm and leg were chiefly affected, although there was an occasional choreic movement of the facial muscles of the right side. She was delivered the evening after her entrance. The following morning the chorea had greatly diminished, and five days later was scarcely noticeable. There were no choreic symptoms during her first pregnancy.]

LETTER FROM PHILADELPHIA.

MESSRS. EDITORS,—The vacant chairs in the medical department of the university, to which I alluded in my last letter, have just been filled. The chair of chemistry recently vacated by Professor Rogers has been given to Prof. Theodore F. Wormley, of Starling Medical College, Columbus, Ohio. He has an excellent reputation as a chemist. As a lecturer his talent is undoubtedly of high order, at least so far as delivery is concerned. As you will remember, Professor Wormley read the address on Medical Chemistry and Toxicology before the International Medical Congress in September last, and it can be said that no address was read with more grace or with finer elocution than his. Professor Wormley's published works have won for him a high degree of esteem, especially that on Micro-Chemistry, with the preparation of which is connected a very interesting incident. It is said that when he had completed his beautiful drawings for this work he first learned that the cost of engraving them would deter any publisher from undertaking the introduction of the book to the public. For this reason his prolonged labor seemed destined to result simply in a loss of time and fame. The impending disappointment was, however, averted by the courage and talent of the professor's gifted wife, who at once began to study the art of steel engraving, and with such success that she finally engraved every one of the necessary plates so beautifully that they rival the finest bank-note plates. This story is thoroughly characteristic of American women. Professor Wormley has accepted his appointment and will enter upon his duties at the university in October next.

The canvass for the chair of clinical surgery in this school has been unusually warm. The candidates were all able men. Dr. John Ashurst, Jr., was the successful contestant. He is well known as one of our most accomplished surgical scholars, but few American surgeons being so profoundly read in the ancient and modern literature of his specialty as he is. He has won reputation, too, as the

author of a work on surgery. He takes the chair recently vacated by Dr. John Neill. Dr. Ashurst takes the title of professor because he has the privilege of voting at faculty meetings.

Dr. Francis Gurney Smith has for many years occupied the university chair of physiology. The trustees find it a difficult matter to secure a satisfactory successor to Professor Smith, and have therefore elected Dr. James Tyson, auxiliary professor of pathological anatomy, as temporary incumbent of this chair. Meanwhile the trustees will look for a permanent professor of this branch of medicine. The new curriculum in detail has been arranged as follows:—

First Year. Anatomy, four lectures, eight hours' dissection per week; normal histology, two hours in laboratory; materia medica, one lecture, one hour laboratory; general chemistry, three lectures, three hours laboratory; physiology, four lectures; obstetrics, three lectures; medical and surgical clinics, eight hours. Total hours, thirty-seven per week; at the end of the course examinations on general chemistry, materia medica, and pharmacy.

Second Year. Anatomy, four lectures per week; surgical anatomy, two lectures; medical chemistry, one lecture, one hour laboratory; physiology, four lectures, two hours laboratory; morbid anatomy, two lectures; therapeutics, three; obstetrics, three; theory and practice of medicine, four; surgery, four hours; clinics, medical and surgical, eight. Total hours per week, thirty-eight. Examinations on anatomy, medical chemistry, physiology, obstetrics.

Third Year. Therapeutics, three lectures per week; morbid anatomy, two lectures, two hours laboratory; theory and practice of medicine, four lectures; surgery, four; operative surgery, two; diseases of children, one; didactic gynecology, one lecture, and one of bedside teaching; * bedside instruction in practical medicine (including physical diagnosis), one lecture, one hour teaching; * practical ophthalmoscopy, one; * practical electro-therapeutics, one; * practical otology, one; * medical and surgical clinics, eight; special clinics (nervous diseases, diseases of women and children, of eye, ear, and skin), five. Total hours per week, thirty-nine. Specialties marked with asterisk will be so taught that each student will receive direct personal instruction. Final examination for degree: therapeutics, morbid anatomy, theory and practice of medicine, surgery. This seems a sensible arrangement of the various studies. The fact that two years will be devoted to anatomy, and that the examination in that branch will not be made until the expiration of the second year gives universal satisfaction. The dean of the faculty has addressed "to the alumni of the medical department of the university and all other friends of higher medical education" a circular in which he calls their attention to the inadequacy of the old system of education, and explains the significance of the changes recently adopted. He alludes to the "grave responsibility incurred by those who have made these changes." It can hardly be denied, however, that a much graver responsibility rested upon them during the continuance of the old, imperfect system which has finally been shelved. The yearly fee in the two regular schools of Philadelphia is \$140, so that the fee of \$100 which will be required from the third-year men is but little less than the regular payment.

Philadelphia men are jubilant over the settlement of the pharmacopœia question at Chicago, and feel proud of Dr. Wood's share in the discussion.

Dr. Wood, by the way, is devoting much time to scientific experiments on heat in animals. I cannot even shadow the results, since they will in good time be published. But I may say that the experiments are being conducted with very great exactitude, new discoveries have been made, and errors in former experiments of European scientists brought to light. After completing his studies on animal heat Dr. Wood will proceed to experiment on the effect of antipyretics on heat. We may look for fresh and valuable additions to our knowledge in this direction.

In my last I mentioned that two of the summer lectures at the university were given by auxiliary professors. I should have said that five of the auxiliary professors were thus engaged, one of whom, Dr. Harrison Allen, is hard at work upon the first complete work on general anatomy ever written by an American. Dr. Allen is professor of comparative anatomy at the university, and makes a most sensible and ingenious use of his thorough knowledge of this branch of science by teaching general anatomy through and by means of comparative anatomy. He also holds the chair of anatomy in the Philadelphia Dental College. Modest, kindly, and courteous, he has many friends, and his general culture, especially his profound knowledge of anatomy, bespeaks for him a large future.

Two years ago the Philadelphia Hospital abandoned the practice of issuing certificates to students who attended the clinics at this institution because certain of them, notably the homœopaths, used the certificates as diplomas. The authorities at Pennsylvania Hospital have not followed this example, but still issue certificates to all students who make use of their clinics, and the body of students is composed of all sorts, regular, eclectic, and homœopath. Women, however, have not been admitted since the fracas of 1869.

One of the busy practitioners of Philadelphia has by an odd coincidence recently been called to three serious cases, all of which had previously been in the hands of homœopaths, and in each of which had been made a most stupid error in diagnosis. One of these cases was a nephritis of severe type, but which had not been recognized by the homœopath, who had not made a single examination of the patient's urine, which was found by the regular physician to contain three fourths albumen. Upon questioning the patient's wife as to the diagnosis of the homœopath who had been treating the case over six months, he was told that "the doctor said it was slouching of the liver and decomposition of the bowels."

It never has been satisfactorily explained why it is that homœopaths, aside from their peculiar dogma, are generally so poorly educated in medicine. But this fact may explain the unwillingness of homœopaths when ill to be treated by one of their own school.

In my next letter I hope to give you a sketch of a medical school in Japan, founded two or three years since by Dr. Berri, a Japanese graduate of Jefferson Medical College. He opened the first school of anatomy ever known in Japan, and has translated Heath's Anatomy into his mother tongue. Dr. Berri is at present in Philadelphia.

H. O.

PHILADELPHIA, June, 1877.

COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING JUNE 30, 1877.

	Estimated Population, July 1, 1877.	Total Mortality for the Week.	Annual Death-Rate per 1000 for the Week.	Death-Rate for the Year 1876.
New York	1,077,228	569	27.46	27.46
Philadelphia	850,856	338	20.66	22.88
Brooklyn	527,830	248	24.44	24.31
Chicago	420,000	166	20.55	20.41
Boston	363,940	121	17.29	23.89
Providence	103,000	26	13.12	18.34
Worcester	52,977	12	11.78	22.00
Lowell	53,678	8	7.75	22.21
Cambridge	51,572	15	15.12	20.54
Fall River	50,372	16	16.52	22.04
Lawrence	37,626	8	11.06	23.32
Lynn	34,524	16	24.09	21.37
Springfield	32,976	4	6.31	19.69
Salem	26,789	11	21.39	23.57

BOOKS AND PAMPHLETS RECEIVED. — Cases of Cystic Tumors of the Abdomen and Pelvis. By George Holmes Bixby, M. D. (Reprint from Vol. I. Gynecological Transactions.) 1876.

Report of Bowery Branch. Young Men's Christian Association, 134 Bowery, New York.

Report on Dermatology. By Lunsford P. Yandell, Jr., M. D. (Reprinted from the American Practitioner, June, 1877.)

Analysis of Seven Hundred and Seventy-Four Cases of Skin Disease. By L. Duncan Bulkley, M. D. (Reprinted from the New York Medical Journal, April, 1877.)

On the Use of Large Probes in the Treatment of Strictures of the Nasal Duct. By Samuel Theobald, M. D. (Reprinted from the Transactions of the Medical and Chirurgical Faculty of Maryland.) 1877.

Diastasis of the Sternum by the Violent Action of the Diaphragm during Coughing. By T. J. Lutz, A. M., M. D. (Reprinted from the St. Louis Medical and Surgical Journal.)

Proceedings and Reports of the Sanitary Commission of the City of Atlanta, Ga. 1876. Pp. 195.

Case of a Bearded Woman. By Louis A. Duhring, M. D. (Reprinted from the Archives of Dermatology.) 1877.